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14. ABSTRACT
The first International Conference on Computational Cell Biology (ICCCB) was successfully held at Blacksburg, Virginia from August 14th to 16th, 2013. Over 100 researchers were gathered at Blacksburg to present their latest research and discussed challenges in computational cell biology research and education.

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Report Title

Final Report: International Conference in Computational Cell Biology: from the past to the future

ABSTRACT

The first International Conference on Computational Cell Biology (ICCCB) was successfully held at Blacksburg, Virginia from August 14th to 16th, 2013. Over 100 researchers were gathered at Blacksburg to present their latest research and discussed challenges in computational cell biology research and education.

Enter List of papers submitted or published that acknowledge ARO support from the start of the project to the date of this printing. List the papers, including journal references, in the following categories:

(a) Papers published in peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in peer-reviewed journals:

(b) Papers published in non-peer-reviewed journals (N/A for none)

Received Paper

TOTAL:

Number of Papers published in non peer-reviewed journals:

(c) Presentations

Number of Presentations:

Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Non Peer-Reviewed Conference Proceeding publications (other than abstracts):

Peer-Reviewed Conference Proceeding publications (other than abstracts):

Received Paper

TOTAL:

Number of Peer-Reviewed Conference Proceeding publications (other than abstracts):

(d) Manuscripts

Received Paper

TOTAL:

Number of Manuscripts:

Books

Received Book

TOTAL:

Received	Book Chapter

TOTAL:

Patents Submitted

Patents Awarded

Awards

N/A

Graduate Students

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Post Doctorates

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Faculty Supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Names of Under Graduate students supported

NAME	PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Student Metrics

This section only applies to graduating undergraduates supported by this agreement in this reporting period

The number of undergraduates funded by this agreement who graduated during this period: 0.00

The number of undergraduates funded by this agreement who graduated during this period with a degree in science, mathematics, engineering, or technology fields:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and will continue to pursue a graduate or Ph.D. degree in science, mathematics, engineering, or technology fields:..... 0.00

Number of graduating undergraduates who achieved a 3.5 GPA to 4.0 (4.0 max scale):..... 0.00

Number of graduating undergraduates funded by a DoD funded Center of Excellence grant for Education, Research and Engineering:..... 0.00

The number of undergraduates funded by your agreement who graduated during this period and intend to work for the Department of Defense 0.00

The number of undergraduates funded by your agreement who graduated during this period and will receive scholarships or fellowships for further studies in science, mathematics, engineering or technology fields:..... 0.00

Names of Personnel receiving masters degrees

NAME

Total Number:

Names of personnel receiving PHDs

NAME

Total Number:

Names of other research staff

NAME PERCENT_SUPPORTED

FTE Equivalent:
Total Number:

Sub Contractors (DD882)

Inventions (DD882)

Scientific Progress

The first International Conference on Computational Cell Biology (ICCCB) was successfully held at Blacksburg, Virginia from August 14th to 16th. A conference program has been included in this report.

The conference has achieved the following goals:
1) The conference provided a platform for exchanging ideas and fostering collaborations between experimentalists and theoreticians. In total, over 100 researchers attended the conference. There were 10 sessions for scientific talks, including 9 invited talks, 11 contributed talks, and 5 student travel award talks. The speakers were composed of established senior researchers, junior faculty members, postdoctoral fellows and graduate students. Also, a poster session with 54 posters allowed ample opportunity for the participants to interact and discuss cutting edge research in computational cell biology. We would like to highlight that all of the invited senior scientists actively participated in the discussion and nurturing trainees.
We also arranged two lunches and one dinner at Virginia Tech's award winning dinning hall, which also provides relaxed environments for attendees to exchange ideas.
2) The conference provided a rare opportunity for young researchers to interact and learn from the leading scientists in the field of computational cell biology. On choosing speakers, we avoided having two speakers from the same lab, and put graduate students and postdoctoral researchers with higher priority. We selected 5 graduate students to give oral presentations. For the poster session, a judging committee, with members mainly outside of the organizing committee and not affiliated to Virginia Tech, selected three prize recipients from postdoc and graduate presenters.
3) The conference provided a forum for students, researchers, and administrators to discuss interdisciplinary research and education. Dr John Tyson led a special session on education, with panels including Professors Thomas Pollard (Yale), Arthur Lander (UC Irvine), and Jill Sible (Virginia Tech). Attendees discussed various problems including potential challenges for the development of the field, strategies for facilitating interactions between experimentalists and modelers, and ideas for training young researchers. The leading panel members led discourse on the successes and lessons learned from some existing programs, such the interdisciplinary center at UC Irvine, and the new efforts at Virginia Tech to reform the science curriculum in establishing an undergraduate major in systems biology.
We have received numerous positive comments from the conference attendees, and are considering the suggestion to establish a regional conference in computational cell biology. Currently, we are considering holding such a conference every 2-3 years, and including researchers from institutions in close proximity (such as University of North Carolina, University of Tennessee, University of Virginia, and Ohio State University) in the organizing committee.

Technology Transfer

N/A